

REMARKS

Applicants request favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1 and 7-14 were pending in the application and were rejected in the Office Action. By way of this amendment, Applicants have amended claims 1, 9, and 10, without adding new matter and without altering the scope of protection to be afforded to these claims (*i.e.*, the typographical amendments herein are non-narrowing). Accordingly, claims 1 and 7-14 are respectfully presented for consideration.

The amendments made herein do not raise new issues and, therefore, the foregoing amendments and the following remarks should be entered and considered.

1. Rejection of Claims 1 and 7-14 under 35 U.S.C. § 112, ¶ 2

The Examiner rejected claims 1 and 7-14 under 35 U.S.C. § 112, ¶ 2 as being indefinite due to the recitation of “and/or” in independent claims 1, 9, and 10 (*i.e.*, the claims from which claims 7, 8, and 11-14 depend). Applicants respectfully traverse this rejection because one of ordinary skill in the art would readily construe “(A) and/or (B)” to mean “(A) or (B) or (A and B)”. Moreover, the use of “and/or” is readily understood to have the same effect as “selected from the group consisting of (A), (B), and (A and B)” (*i.e.*, a Markush group), which is specifically allowed by M.P.E.P. § 2173.05(h)(I), (II). Finally, this understanding is specifically set forth in ¶ [0031], which states that the rapid torque reduction may be performed by: (A) “ignition timing retardation” or (B) “a reduction or cutoff in the amount of fuel supplied” or (A and B) “ignition timing retardation . . . at the same time as the reduction or cutoff in the amount of fuel supplied.”

For the aforementioned reasons alone, the rejection should be withdrawn. However, to be as helpful as possible, Applicants have added colons (*i.e.*, “:”), paragraph breaks, and indentation to independent claims 1, 9, and 10 to facilitate the Examiner’s ability to read the claims; these amendments were not made to alter the scope of claims 1, 9, and 10. As independent claims 1, 9, and 10 fully satisfy the requirements of 35 U.S.C. § 112, ¶ 2, a withdrawal of the rejection of claims 1 and 7-14 under § 112 is both warranted and respectfully requested.

2. Rejection of Claims 1 and 7-14 under 35 U.S.C. § 103(a)

The Examiner rejected claims 1 and 7-14 under 35 U.S.C. § 103(a) as allegedly being obvious when considering U.S. Patent No. 5,433,676 (“Abe”) in view of U.S. Patent No. 4,819,187 (“Yasue”). For the following reasons, Applicants respectfully traverse this rejection.

Claim 1 (*i.e.*, the claim from which claims 7 and 8 depend) recites a controller apparatus for a vehicle that includes a controller that is configured to (*italic emphasis added*):

when the operating state of the transmission is a predetermined operating state and the torque of the engine is to be reduced, *make a selection, based on the operating state of the transmission, between:*

- (i) *a first torque reduction control* whereby the torque of the engine is reduced rapidly and temporarily by:
 - (a) an ignition timing delay of the engine and/or
 - (b) a reduction of a fuel amount supplied to the engine,*and*
- (ii) *a second torque reduction control* whereby the torque of the engine is reduced continuously, and more smoothly than in the first torque reduction control by reducing an engine intake air amount[.]

Similarly, claim 9 (*i.e.*, the claim from which claims 11 and 12 depend) recites a control apparatus that includes (*italic emphasis added*):

means for making a selection when the operating state of the transmission is a predetermined operating state and the torque of the engine is to be reduced, *based on the operating state of the transmission, between:*

- (i) *a first torque reduction control* whereby the torque of the engine is reduced rapidly and temporarily by:
 - (a) an ignition timing delay of the engine and/or
 - (b) a reduction of a fuel amount supplied to the engine, *and*
- (ii) *a second torque reduction control* whereby the torque of the engine is reduced continuously, and more smoothly than in the first torque reduction control by reducing an engine intake air amount[.]

In addition, claim 10 (*i.e.*, the claim from which claims 13 and 14 depend) recites a control method that includes (*italic emphasis added*):

making a selection when the operating state of the transmission is a predetermined operating state and the torque of the engine is to be reduced, *based on the operating state of the transmission, between:*

- (i) *a first torque reduction control* whereby the torque of the engine is reduced rapidly and temporarily by:
 - (a) an ignition timing delay of the engine and/or
 - (b) a reduction of a fuel amount supplied to the engine, *and*
- (ii) *a second torque reduction control* whereby the torque of the engine is reduced continuously, and more smoothly than in the first

torque reduction control by reducing an engine intake air amount[.]

The combination of Abe and Yasue fails to teach or suggest the control apparatuses recited in claims 1 and 9 or the control method recited in claim 10.

Abe: Abe teaches a control apparatus in which, during upshifting, torque reduction is accomplished by cutting fuel and, during downshifting, torque reduction is accomplished by ignition retardation (or cutting fuel or reducing fuel injection). *See* col. 10, line 59 – col. 18, line 46. Regardless of the manner by which torque reduction is accomplished during upshifting or downshifting, however, Abe fails to teach or suggest selecting a particular torque reduction protocol based on the particular operating state of the transmission. Rather, if the operating state is, *e.g.*, upshifting, Abe teaches using only one torque reduction protocol (*e.g.*, cutting fuel). Similarly, if the operating state is, *e.g.*, downshifting, Abe teaches using only one torque reduction protocol (*e.g.*, ignition retardation or cutting fuel or reducing fuel injection). In other words, Abe fails to teach or suggest selecting, from a plurality of options, a particular manner by which to accomplish torque reduction based on a particular operating state of the transmission, *i.e.*, Abe's sole manner for torque reduction is predetermined. To compensate for the lack of selection, Abe teaches altering the degree to which a particular torque reduction protocols is applied, *e.g.*, adjusting the amount by which the fuel is cut.

Yasue: Although Yasue, as the Examiner indicates, teaches simultaneously employing a combination of torque reduction techniques (*e.g.*, adjusting the fuel injection flowrate and the air intake amount – *see* col. 15, line 62 – col. 16, line 4), one of ordinary skill in the art would not be motivated to combine Abe and Yasue. Specifically, as Abe teaches adjusting the degree of torque reduction by altering the predetermined torque reduction protocol (*e.g.*, altering the amount of fuel cutting), any proposed combination of Abe and Yasue would lead one of ordinary skill in the art to replace Abe's particular torque reduction protocol (*e.g.*, cutting fuel) with one from Yasue (*e.g.*, adjusting air intake). The result of a such a combination, however, would still require adjusting the protocol in terms of degree rather than employing an additional or alternative protocol. In other words, if one of ordinary skill in the art were motivated to combine Abe and Yasue, the result would, *e.g.*, be a replacement of Abe's fuel cutting protocol with Yasue's reduction in air intake amount; no additional torque reduction protocol would be considered and, therefore, a selection between torque reduction protocols would not occur.

As the combination of Abe and Yasue fails to teach or suggest at least the above-italicized limitation of independent claims 1, 9, and 10, the combination can not be used to

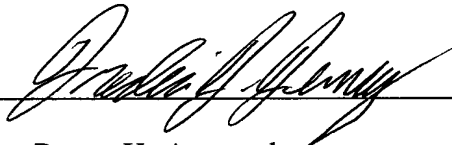
reject these claims, or any claim dependent thereon, under 35 U.S.C. § 103(a). Moreover, as claims 7 and 8 depend from claim 1, as claims 11 and 12 depend from claim 9, and as claims 13 and 14 depend from claim 10, each of these dependent claims is also allowable over Abe and Yasue, without regard to the other patentable limitations recited therein. Accordingly, a withdrawal of the rejection of claims 1 and 7-14 under 35 U.S.C. § 103(a) is both warranted and respectfully requested.

CONCLUSION

For the aforementioned reasons, claims 1 and 7-14 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HERewith, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HERewith, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.